2014 SUSTAINABLE REMEDIATION SURVEY SUMMARY REPORT

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1. BASIC STATISTICS

Total response = 150

2012 Sustainable Remediation Survey participant = 51%

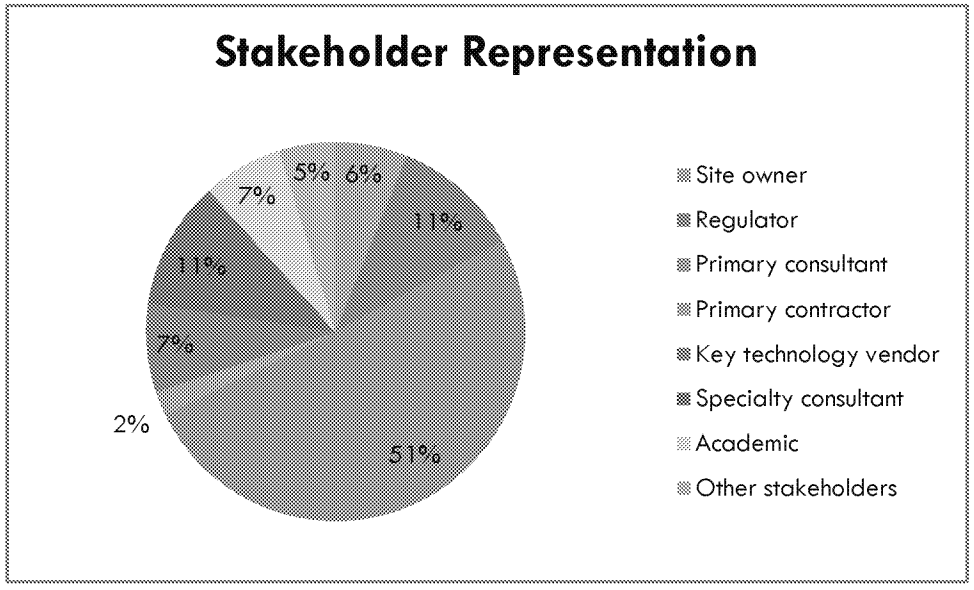
New participant = 49%

Participants are from 18 different countries, primarily from the following countries:

- USA (n=79)
- UK (n=30)
- Brazil (n=8)
- China (n=5)
- Canada (n=5)

2. STAKEHOLDER REPRESENTATION

Survey participants are mainly primary consultants (51%), regulators (11%), and specialty consultants (11%).

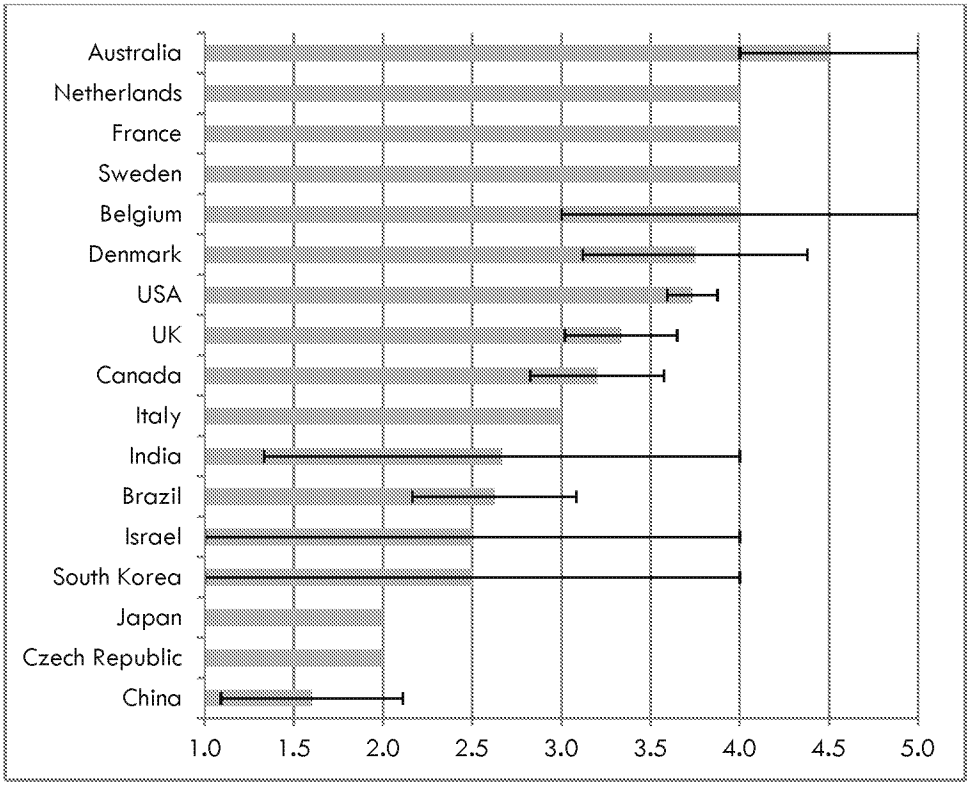


3. ORGANIZATIONAL CHARACTERISTICS

- Approximately 44% participants are from small companies/organizations with less than 200 employees; and 37% participants are from large companies/organizations with over 2000 employees.
- Among all these companies/organizations, 45% of them have at least 50 remediation professionals within the current residence country.
- Among all participants, 80% of them have personally worked on at least 10 contaminated sites within their current company/organization and within the current residence country.

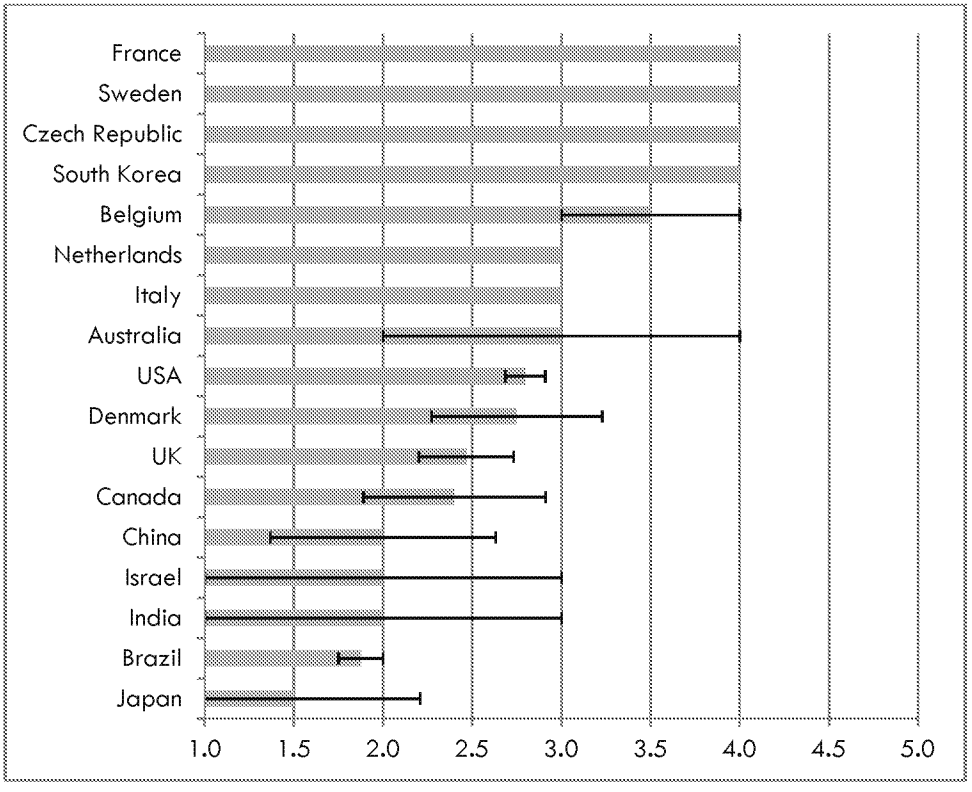
4. AWARENESS OF "SUSTAINABLE REMEDIATION" WITHIN THE COUNTRY

The countries with the highest level awareness of "sustainable remediation" among remediation professionals are Australia, Netherlands, France, Sweden, Belgium, Denmark, and USA. The least awareness is found among Asian countries, such as South Korea, Japan, and China. It should be noted that other than the US, the standard errors are relatively large or unknown. (Scale: 1 = <5% practitioners know; 2 = 5%-20%; 3 = 20%-40%; 4 = 40%-80%; 5 > 80% practitioners know).



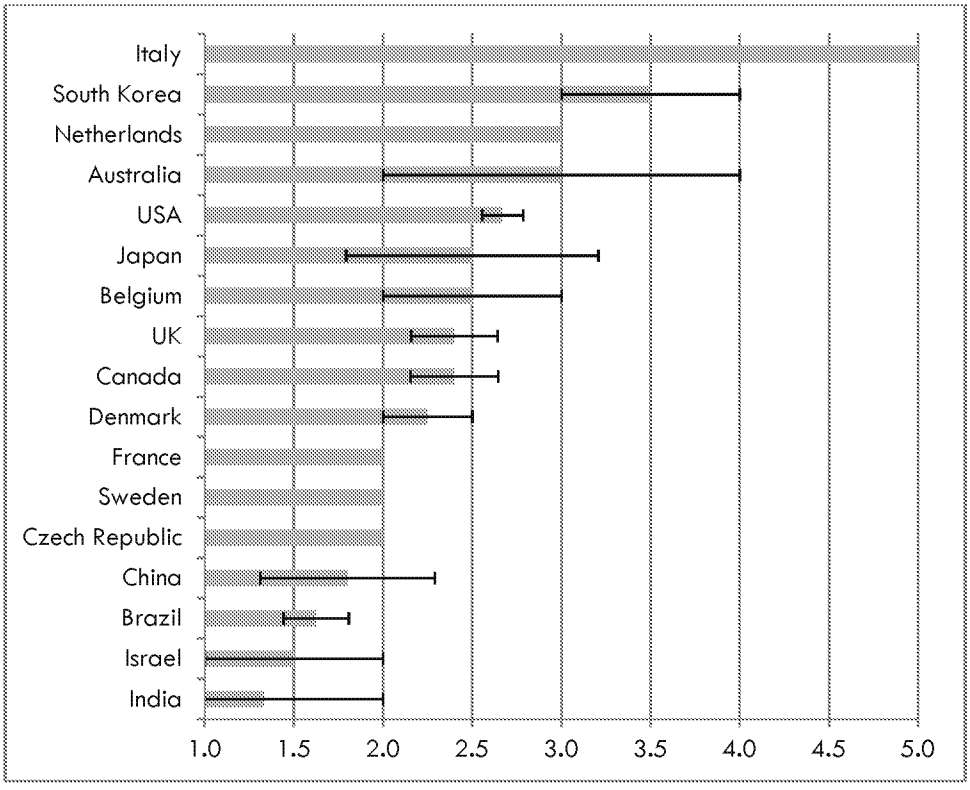
5. PROMOTING FORCE OF "SUSTAINABLE REMEDIATION" WITHIN THE COUNTRY

France and Sweden appear to have both high levels of awareness and high level of promoting forces; however, they are based on single response. The Czech Republic and South Korea had low awareness and high promoting force, but again with uncertainty due to small number of responses. The most reliable results are regarding the USA and UK, where it is generally perceived that promoting forces are weak (between 2 and 3), even though the awareness level are high at these two countries (40%~50%). China and Japan clearly have both low levels of awareness and low levels of promoting forces. (Scale: 1 = No promoting forces at all; 5 = Very strong promoting forces).



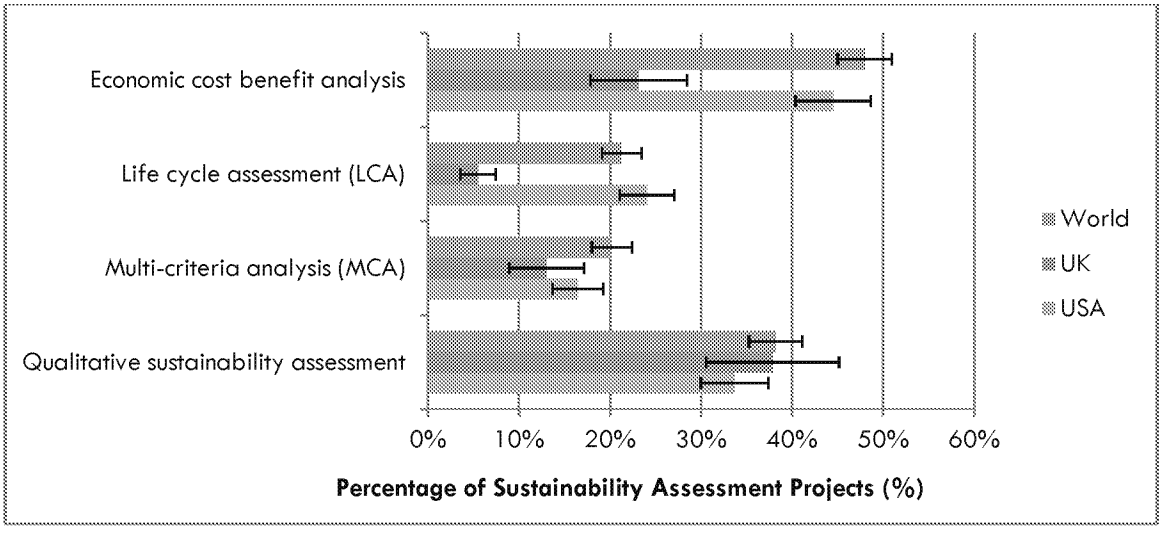
6. EFFECTIVENESS OF ADOPTING "SUSTAINABLE REMEDIATION" BY PRACTITIONERS WITHIN THE COUNTRY

This rating is only slightly above 1 in China, Brazil, Israel, and India, suggesting that sustainable remediation is not really being adopted at these countries. Canada, the US, and the UK have moderate adoption effectiveness, with ratings near 2.5. Italy and South Korea appear to have high rating on the effectiveness; however because the results at these two countries are only based on one or two responses, there are high uncertainties. (Scale: 1 = Not at all; 5 = Very effective)



7. SUSTAINABILITY ASSESSMENT METHODS

According to the survey, "Economic cost benefit analysis" is the most widely used sustainability assessment method both for the international community (48%) and for US respondents (44%), but not so widely used in the UK (23%). The next most popular method is qualitative sustainability assessment (38% for all respondents, 34% for US respondents, and 38% for UK respondents). Life cycle assessment (LCA) is used by 24% of projects in the US, but only 6% of projects in the UK. Multi-criteria analysis (MCA) is also less commonly used, only by 20% of projects in the international community, 16% of projects in the US, and 13% of projects in the UK. It should be noted that the total percentage exceeds 100% in the US and internationally, probably because some of these methods have overlap. The total percentage is less than 100% in the UK, probably because sustainability methods other than these four methods have been used.



8. POLICIES AND GUIDANCE

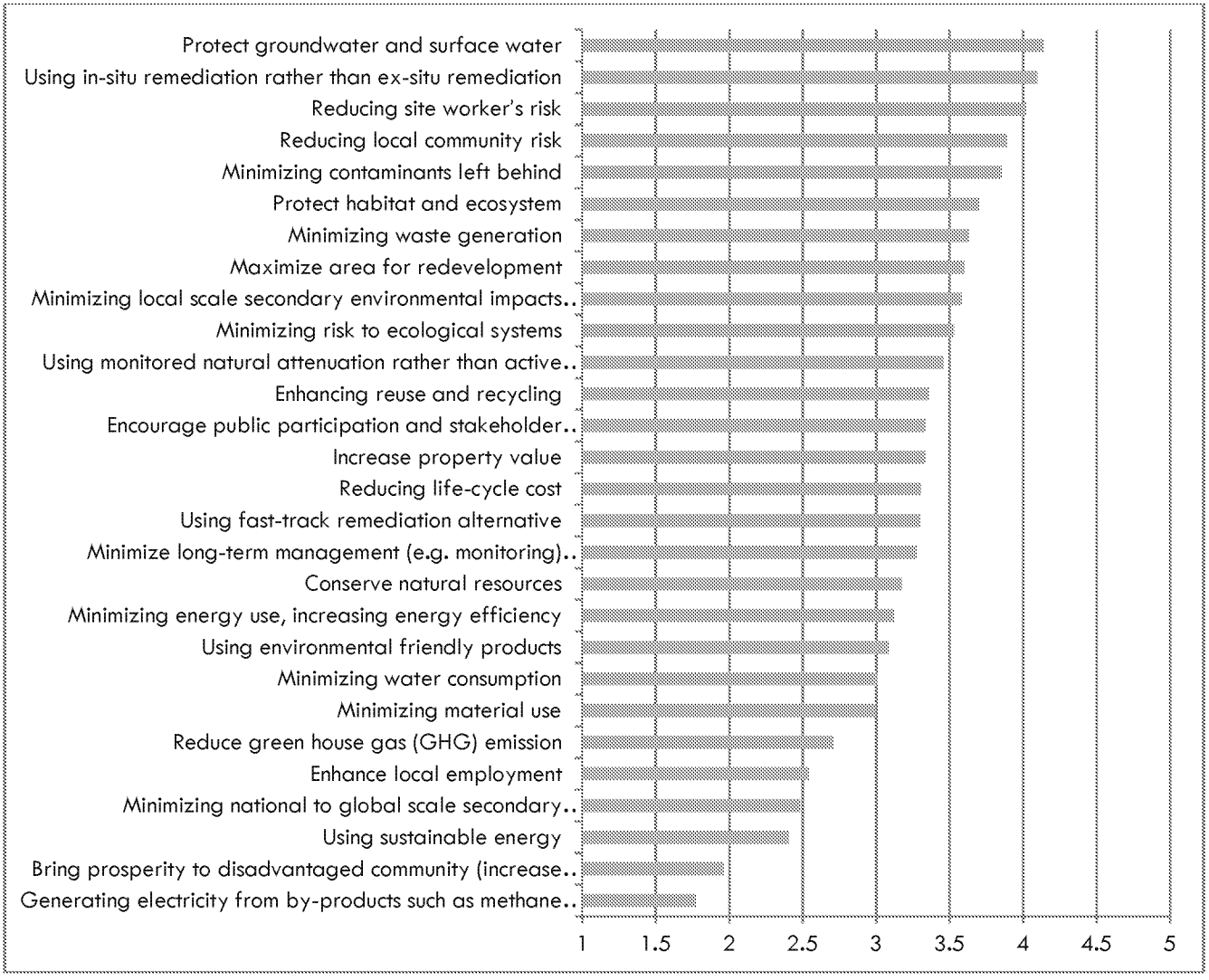
A total of 33 respondents specified the policies and technical guidance that "have promoted the sustainable remediation" in their practices. The following are the most influential policies and technical guidance:

- USEPA Guidance (33%)
- SURF Guidance (24%)
- Surf-UK Guidance (18%)
- State/Provincial Government Policies (18%)
- ASTM Standard (9%)
- DoD Guidance (9%)
- Others (ITRC, ISO, NRC, PG&E, Nicole) (21%)

9. ADOPTION OF SUSTAINABLE REMEDIATION PRACTICES

The following are the most effectively adopted sustainable remediation practices (Scale: 1=Not at all; 5=Very effective). A significant change from the 2012 survey seems to be that the use of in-situ remediation has significantly improved its ranking (from #7 to #2)

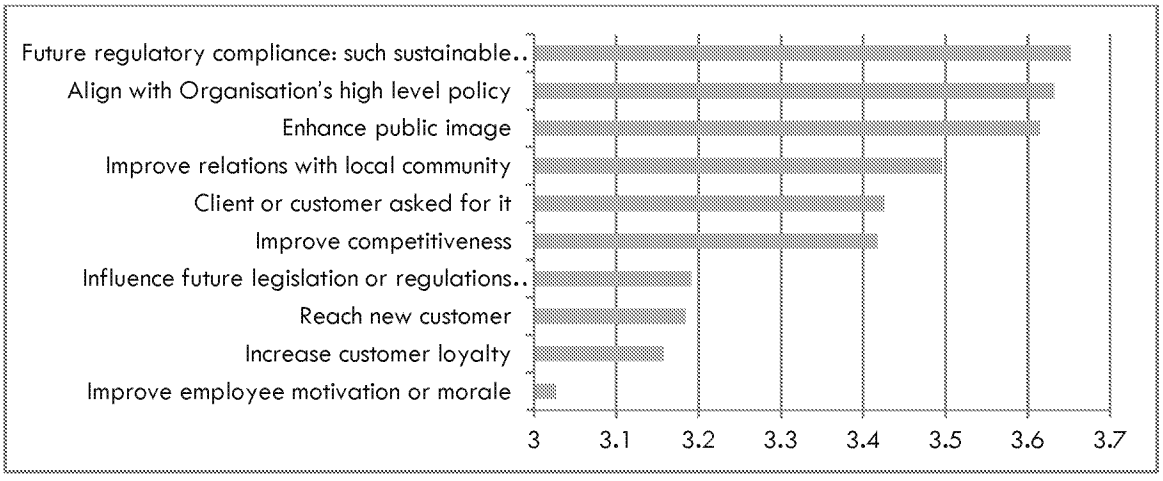
- Protect groundwater and surface water (4.1)
- Using in-situ remediation rather than ex-situ remediation (4.1)
- Reducing site workers' risk (4.0)
- Reducing local community risk (3.9)
- Minimizing contaminants left behind (3.9)



10. FACTORS MOTIVATING SUSTAINABLE REMEDIATION PRACTICES

The following are the most important factors motivating the adoption of sustainable remediation practices (Scale: 1=Not important; 5=Very important):

- Future regulatory compliance: such sustainable practices may become regulatory standards (3.65)
- Align with Organisation's high level policy (3.63)
- Enhance public image (3.61)



11. FACTORS IMPEDING SUSTAINABLE REMEDIATION PRACTICES

The following are the most significant barriers impeding the adoption of sustainable remediation practices (Scale: 1=Not at all; 5=Very significant):

- No regulatory mandate (3.61)
- Lack of client demand (3.59)
- Cost considerations (3.53)